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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,180	08/17/2001	Amit Haller	IXIM-01001US0	4844
28554	7590	11/15/2006	EXAMINER	
VIERRA MAGEN MARCUS & DENIRO LLP			LY, ANH VU H	
575 MARKET STREET SUITE 2500			ART UNIT	
SAN FRANCISCO, CA 94105			PAPER NUMBER	
			2616	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/932,180

Applicant(s)

HALLER ET AL.

Examiner

Anh-Vu H. Ly

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7-13,17-40,54 and 58-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7-10,13,18,34-40,54,58,60 and 61 is/are rejected.
- 7) ☒ Claim(s) 3,9-12,17,19-33,59 and 60 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>July 10, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This communication is in response to applicant's amendment filed August 29, 2006.
Claims 1-3, 5, 7-13, 17-40, 54, and 58-61 are pending.

Claim Objections

2. Claims 9, 10, and 60 are objected to because of the following informalities:

With respect to claim 9, in lines 1-2, "the one or more wireless local area networks" lacks antecedent basis. Further, in line 2, there are two articles "a" before the word Bluetooth.

With respect to claim 10, in lines 1-2, "the one or more wireless local area networks" lacks antecedent basis.

With respect to claim 60, in line 2, replace "ore" with --or--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 5, 7-10, 18, 54, 58, 60, and 61 are rejected under 35 U.S.C. 102(e) as being anticipated by Dowling (US Pub 2005/0170825 A1).

With respect to claim 1, Dowling discloses a hand-held device (Fig. 1, mobile unit 105) for enabling communication between one or more devices connected to one or more cellular networks and one or more devices connected to a wireless local area network (Fig. 1), comprising:

a) a first transceiver (Fig. 1, transceiver 110) to communicate with the one or more devices connected to said one or more cellular networks by sending and receiving cellular signals (page 3, 26th paragraph and Fig. 1, a cellular signal being transmitted between the transceiver 110 and base station, e.g., a wide coverage area cellular network such as WCDMA network), the first transceiver having a cellular network address (As illustrated in Fig. 1, the transceiver 110 communicates with the base station in a WCDMA network, therefore, it must have a telephone number assigned to it to carry out communications);

b) a second transceiver (Fig. 1, transceiver 145) to communicate with the one or more devices connected to the wireless local area network (Fig. 1, network 150) by sending and receiving short-ranged radio signals (page 3, 30th paragraph and Fig. 1, a connection established between the transceiver 145 and AP 150. Herein, the local wireless access point 150 is an access point of a WLAN which employing a low power radio channel, e.g., HomeRF, Bluetooth, or short-range technologies);

c) a storage device to store (Fig. 2, element 225);

c1) a router software component to transfer a plurality of data packets between the one or more devices connected to the one or more cellular networks and the one or more

devices connected to the wireless local area network by the cellular signals and the short-range radio signals (Fig. 2, element 225 processing data packets for transferring between cellular and WLAN networks); and

c2) an interface software component to add a first network service software component that provides one or more network services to the wireless local area network (page 5, 43rd paragraph – the configuration and upper layer communication module 225 is coupled to cause the loading of the software module into the software radio processor 220. The software module received from the first air interface is used to configure one or more lower layers of the second air interface), the first network service component loaded into the storage device from the one or more devices connected to the one or more cellular networks (page 6, 55th paragraph – when the mobile roams to a locality including the local wireless access point 150, a new set of lower layers are downloaded from the server 125 to the client. Wherein, the server 125 is coupled to the cellular network, Fig. 1); and

d) one or more processors (Fig. 2, element 220) connected to the storage device to process the cellular signals and the short-range radio signals.

With respect to claim 2, Dowling discloses that wherein the plurality of data packets includes is an IP packet (page 6, 51st paragraph – a TCP/IP stream socket is opened for data communications. Therefore, data communications are IP data packets).

With respect to claim 5, Dowling discloses that wherein the one or more cellular networks is connected to the Internet (Fig. 1, network 112 is coupled to Internet 122).

With respect to claims 7 and 8, Dowling discloses that wherein the one or more cellular networks is connected to a corporate network and/or a private IP network (page 3, 27th paragraph and Fig. 1 - Internet 122 may represent a corporate intranet or a virtual private network overlaid upon the Internet).

With respect to claims 9 and 10, Dowling discloses that wherein the wireless local area network is a Bluetooth wireless local area network and/or 802.11 WLAN (page 10, 80th paragraph – the system may be implemented with IEEE 802.11, HomeRF, and/or Bluetooth).

With respect to claim 18, Dowling discloses that wherein the first network service software component is a virtual private network software component to establish a secure link (page 7, 59th paragraph – optimization is supplied according to user preferences, e.g., reliability and connection speed).

With respect to claim 54, Dowling discloses a system for enabling communication between one or more devices connected to one or more cellular networks and one or more devices connected to a wireless local area network (Fig. 1), comprising:

- a) a managing processing device connected to the one or more cellular networks for managing, collecting and configuring data in the wireless local area network (Fig. 1, server 135 or server 125);

- b) a hand-held device (Fig. 1, mobile unit 105), connected to the managing processing device (Fig. 1, mobile unit 105 wirelessly communicates with the communication server 135 via

cellular network 112) and connected to the wireless local area network (Fig. 1, network 150) comprising:

b1) a routing software component to transfer a plurality of packets between one or more devices connected to the one or more cellular networks and the one or more devices connected to the wireless local area network (Fig. 2, element 225 processing data packets for transferring between cellular and WLAN networks) by the cellular signals and the short-range radio signals (page 3, 30th paragraph – WLAN employing short range technology); and

b2) an interface software component to add a first network service software component that provides one or more network services to the wireless local area network (page 5, 43rd paragraph – the configuration and upper layer communication module 225 is coupled to cause the loading of the software module into the software radio processor 220. The software module received from the first air interface is used to configure one or more lower layers of the second air interface), the first network software component loaded into the hand-held device by the managing processing device, including a managing software component, sending the cellular signals over the one or more cellular networks (page 6, 55th paragraph – when the mobile roams to a locality including the local wireless access point 150, a new set of lower layers are downloaded from the server 125 to the client. Herein, the server 125 is coupled to the cellular network, Fig. 1); and

c) a device connected to the hand-held device and connected to the wireless local area network to transfer a first packet in the plurality of packets to the hand-held device (Fig. 1, element 150).

With respect to claim 58, Dowling discloses that the router software component tunnels the plurality of packets to the managing processing device (Fig. 4, at block 415, service requests and location packets are transmitted to the server from the hand-held device) and wherein the managing processing device processes the plurality of packets (Fig. 4, at block 420, the server processes the requests).

With respect to claim 60, Dowling discloses that the router software component maintains a first IP session link with a first cellular network in the one or more cellular networks responsive to an amount of IP packets received in the plurality of packets (Fig. 4, the hand-held device, with an temporary IP address, is in communication with the server and the provider for downloading configuration data as long as the downloading has not finished).

With respect to claim 61, Dowling discloses that wherein the router software component initiates a first IP session link with a first cellular network (Fig. 4, at block 415, mobile unit sends the request to the server) in the one or more cellular networks responsive to a signal from the managing processing device (page 7, 59th paragraph – the server establishes a server-side management session with the client).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling (US Pub 2005/0170825 A1) in view of Pham et al (US Patent No. 6,891,820 B1).

With respect to claim 13, Dowling discloses a mobile unit in communications with the cellular network and the WLAN network (Fig. 1). Dowling does not disclose that the router software component includes a local routing software component to route an IP packet between a first wireless device in the wireless local area network and a second wireless device in the wireless local area network. Pham discloses that an IP packet is relayed from node A1 to destined node D1 via node L1 in the WLAN 20. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of relaying IP packets by other nodes to reach the destination nodes in Dowling's system, as suggested by Pham, when the origination and destination nodes are not in a communication range.

5. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling (US Pub 2005/0170825 A1) in view of Mizutani et al (US Pub 2001/0022780 A1).

With respect to claims 34 and 35, Dowling discloses a system for enabling communication between one or more devices connected to one or more cellular networks and one or more devices connected to a wireless local area network (Fig. 1), comprising:

a) a hand-held device (Fig. 1, mobile unit 105) comprising:

a1) a first transceiver (Fig. 1, transceiver 110) to communicate with the one or more devices connected to the one or more cellular networks by sending and receiving cellular signals (page 3, 26th paragraph and Fig. 1, a cellular signal being transmitted between the transceiver 110 and base station, e.g., a wide coverage area cellular network such as WCDMA network);

a2) a second transceiver (Fig. 1, transceiver 145) to communicate with the one or more devices connected to the wireless local area network (Fig. 1, network 150) by sending and receiving short-ranged radio signals (page 3, 30th paragraph and Fig. 1, a connection established between the transceiver 145 and AP 150. Herein, the local wireless access point 150 is an access point of a WLAN which employing a low power radio channel, e.g., HomeRF, Bluetooth, or short-range technologies); and;

a3) a storage device to store (Fig. 2, element 225) a router software component to transfer a plurality of packets between the one or more devices connected to the one or more cellular networks and the one or more devices connected to the wireless local area network by the cellular signals and the short-range radio signals (Fig. 2, element 225 processing data packets for transferring between cellular and WLAN networks) and to store an interface software component to add a first network service software component that provides one or more network services to the wireless local area network (page 5, 43rd paragraph – the configuration and upper layer communication module 225 is coupled to cause the loading of the software module into the software radio processor 220. The software module received from the first air interface is used to configure one or more lower layers of the second air interface), the one or more network services including a

first network service component loaded into the storage device from the one or more devices connected to the one or more cellular networks (page 6, 55th paragraph – when the mobile roams to a locality including the local wireless access point 150, a new set of lower layers are downloaded from the server 125 to the client. Wherein, the server 125 is coupled to the cellular network, Fig. 1).

Dowling discloses that the mobile unit is coupled to the local wireless access point 150 (page 3, 30th paragraph). Dowling does not disclose that a first and a second wireless device having short-range transceivers to transfer a first and a second packet in the plurality of packets to the hand-held device, wherein first and second wireless devices having a first and a second wireless local area network addresses. Muzutani discloses a plurality of wireless devices (Fig. 1) having associated wireless LAN addresses (Fig. 3, originator ID 35) and communicating a plurality of packets (Fig. 3), to the hand-held wireless device (Fig. 11, devices 114 and 116 communicating packets to device 115) according to short-ranged technologies (page 7, 78th paragraph – the network employing Bluetooth technology wherein Bluetooth is the most representative short range wireless communication as a wireless communication technology. Herein, the wireless devices are cellular phones, notebook computers, etc...(page 2, 19th paragraph). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include group communications among wireless devices employing short-range technologies in Dowling's system, as suggested by Mizutani, to relay interested information among the members of the group.

With respect to claims 36 and 37, Dowling that wherein the hand-held device is a cellular telephone using GSM protocol and/or CDMA protocol (page 4, 37th paragraph – air interface module 205 supports a macro-cellular air interface as implemented in CDPD, GSM, PCS or wideband CDMA).

6. Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling (US Pub 2005/0170825 A1) and Mizutani further in view of Yang et al (US Pub 2003/0027570 A1).

With respect to claims 38-40, Dowling discloses that the air interface module 205 supports a macro-cellular air interface as implemented in CDPD, GSM, PCS or wideband CDMA (page 4, 37th paragraph). Dowling does not disclose that the air interface also support CDMA2000, UMTS, and/or TDMA protocols. Yang discloses a communication system (page 1, 13th paragraph – CDMA2000, UMTS and/or TDMA protocols) for routing a call to a roaming mobile unit (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include CDMA2000, TDMA, and UMTS protocols in Dowling's system, as suggested by Yang, to increase operational functionalities of mobile unit in different communication networks.

Allowable Subject Matter

7. Claims 3, 11-12, 17, 19-33, and 59 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed August 29, 2006 have been fully considered but they are not persuasive.

Applicant argues in page 12 that Dowling does not disclose a storage device to store a router software component to transfer a plurality of data packets between cellular networks and the wireless local area network. Examiner respectfully disagrees. Dowling discloses in Fig. 2, the architecture of a mobile unit comprising a configuration and upper layer module 225. Herein, the module 225 is the storage device having instructions either controlled by software or hardware, for directing the data packets to be transmitted via transceivers 200 and 215.

Applicant further argues in page 13 that Dowling does not disclose an interface software component to add a first network service software component that provides one or more network services to the wireless local area network. Examiner respectfully disagrees. Dowling discloses in page 5, 43rd paragraph that the configuration and upper layer communication module 225 is coupled to cause the loading of the software module into the software radio processor 220. The software module received from the first air interface is used to configure one or more lower layers of the second air interface. Herein, the second air interface is associated with the wireless local area network. And wherein, the software radio processor 220 is the interface software component that stored the loaded software module.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

avl


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SUPERVISORY PATENT EXAMINER 11/13/02